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N-MIECHV

N-MIECHV Quality Management 2012-2013

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N-MIECHV Quality Management 2012-2013

Nebraska Department of Health and Human Services Division of Public Health

An effective Evidence-Based home visiting system responds with a data and quality driven methodology to the diverse needs of children and families in your community and provides a unique opportunity for collaboration and partnerships to improve health and development outcomes.

An effective Continuous Quality Improvement (CQI) system is one that involves all levels of invested and motivated home visiting stakeholders in a process of evaluating system processes that were designed to achieve a number of predetermined federal benchmark and other outcomes.

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PURPOSE

The purpose of this manual is to provide a technical overview of the Nebraska Maternal, Infant and Early Childhood Home Visiting (N-MIECHV) Quality Improvement (CQI) processes. The manual is divided into three purpose areas or chapters.

1. Infrastructure

    a. Background
    b. Philosophical framework
    c. Operational procedures
    d. Data system for collection of CQI data
    e. Reporting structure and formats

2. N-MIECHV CQI Model

3. CQI annual plan

I. Chapter one describes the specific infrastructure and processes designed to support the work of the CQI teams,
II. Chapter two describes the specific operational procedures and processes members of the CQI teams use to get the work done, and
III. Chapter three provides an annual overview of the planned CQI work. This chapter is updated annually (or more often as needed) to outline the major steps and actions for each community and the state team in maintaining and elevating the CQI work.

This manual describes a number of current procedures that are already in operation, and also describes a number of planned steps and procedures scheduled for implementation during the current grant year. As this year's process continues our team will re-evaluate the feasibility of the proposed model and provide sufficient opportunity to make modifications along the way.

Chapter I

(Infrastructure)

INTRODUCTION

MIECHV

Nebraska Maternal, Infant and Early Childhood Home Visiting (N-MIECHV) is part of a national initiative centered on home visiting as a primary service delivery strategy, targeting specific participant outcomes including improved maternal and child health, prevention of child injuries, child abuse, or maltreatment, reduction of emergency department visits, improvement in school readiness and achievement, reduction in crime or domestic violence, improvements in family economic self-sufficiency, and improvements in the coordination and referrals for other community resources and supports.

An Opportunity for Building System Quality

The MIECHV initiative provides an unprecedented opportunity for collaboration and partnership at the federal, state, and community levels to improve health and development outcomes for children through evidence-based home visiting. The program is one of several strategies embedded in a comprehensive early childhood system that promotes maternal, infant, and early childhood health and development, relying on the best available research evidence to inform and guide practice. An integral part of this is the application of a strategic and continuous method of assessing processes and program quality.

A Need for CQI

To achieve this purpose it is essential to implement a procedure that systematically reviews performance measures and outcomes, and creates plans for improvement within programs and the broader system. This will help determine whether services and activities meet program expectations of quality and progress as well as other outcomes.

This CQI process will involve all staff and a number of community stakeholders in the evaluation of the effectiveness of home visiting services, the support system, and N-MIECHV as a whole. To achieve maximum impact, staff and stakeholders will practice a system of self-directed improvement.

What is CQI?

CQI is an approach that builds upon traditional quality assurance methods. It focuses on "process" rather than the individual or a program. CQI is a philosophy which accepts that most things can be improved. At the core are on-going efforts to monitor and a process of experimentation applied to everyday work to meet the needs of families and improve services. Collectively CQI provides:

- An approach that promotes the objective analysis of data to improve processes and outcomes.
- A process that focuses on system improvements rather than individual deficiencies.
- A means for the adaptation of standardized processes and frameworks for programs.
- An analytical decision-making process that allows for testing a solution, evaluation of the results to predict the likelihood of achieving target outcomes.
- An emphasis on a process of constant improvement in service delivery, requiring long-term organizational commitment and teamwork.[1]

[1] Adapted from information from the Institute for Healthcare Improvement, NC Center for Public Health Quality, NC Charlotte Area Health Education Center, and NC State University Industrial Extension Service.

Philosophical Framework

The N-MIECHV CQI process strives to achieve a level of service and system quality that meets federal MIECHV and Healthy Families America (HFA) accreditation standards, and that promotes quality outcomes for children and families. The overall goals of the N-MIECHV QCI process are to:

1. Promote the achievement of the federal benchmark outcome goals.
2. Assure the implementation of quality Evidence-Based home visiting services that meet applicable fidelity measures.
3. Achieve local and statewide efficiencies and effectiveness around home visiting.
4. Increase the availability of resources and quality tools for the state's Home Visiting programs.

The N-MIECHV CQI system works within the framework of the vision and mission of the Nebraska Home Visiting Partnership.

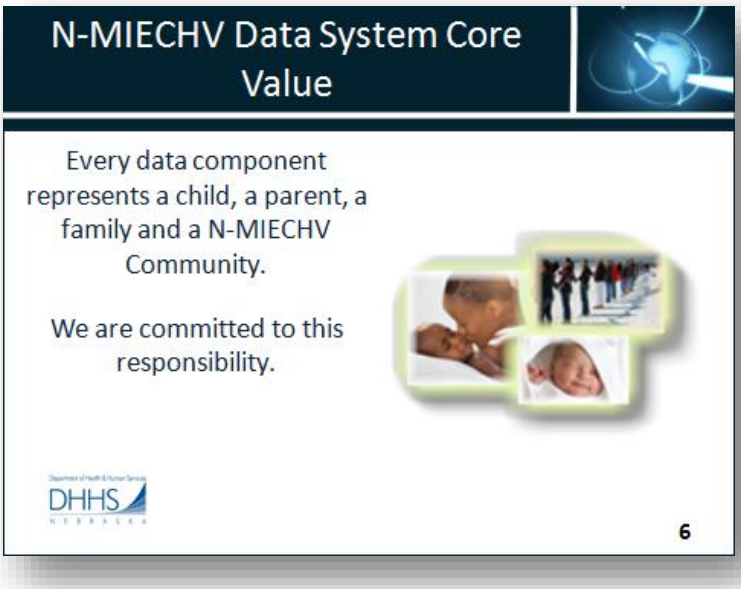
Mission: To ensure coordination and collaboration between public and private partners in the planning and implementation of high quality home visiting strategies in Nebraska.

Vision: Children are healthy, families thrive, and communities grow stronger.

N-MIECHV CQI Guiding Principles

Fundamental to the development of Nebraska's CQI is remembering that the system is designed to improve the lives of young children and their families, thereby strengthening communities. We have a commitment to providing credible and transparent processes that are aimed at achieving the best possible outcomes. Guided by this core commitment, the N-MIECHV CQI process also includes the following fundamental principles:

1. CQI team members are adequately trained in CQI modalities and home visiting best practice.
2. CQI and data inform policy and procedure development.
3. The team supports various perspectives and views with a collaborative spirit, and encourages creative yet efficient and effective solutions to problems.
4. CQI is seen as in investment.



5. The focus is on learning and process improvement rather than blaming people or programs.

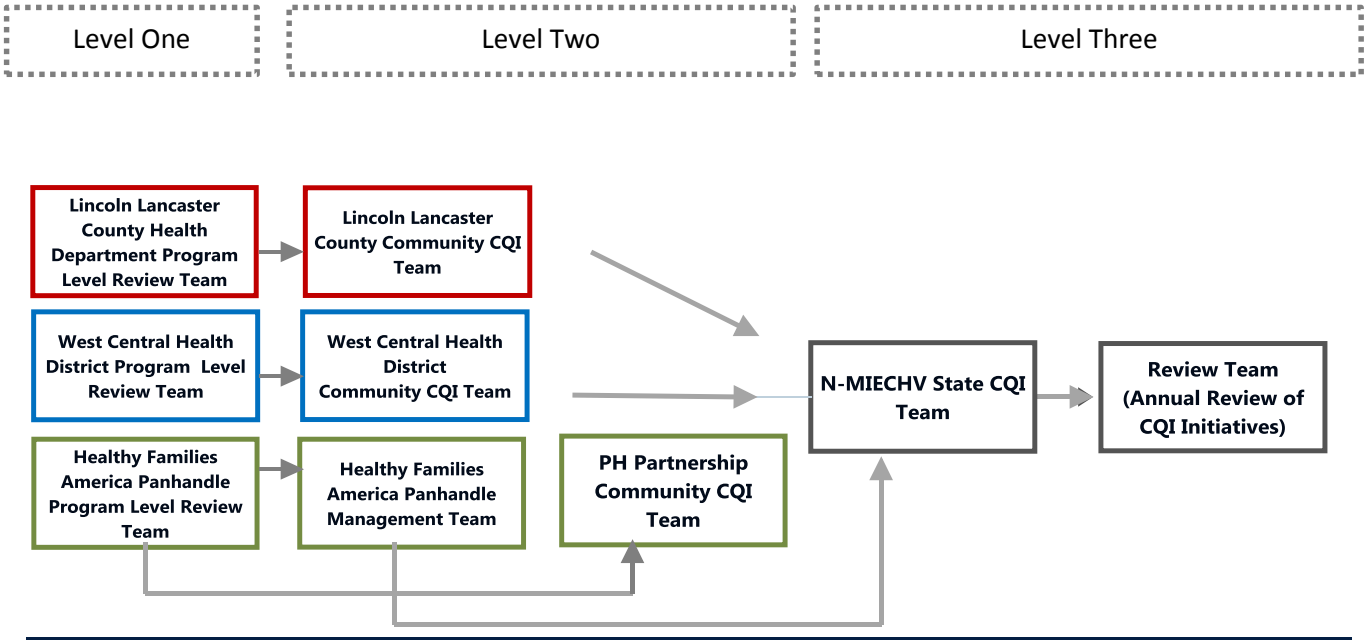
OPERATING PROCEDURES

The N-MIECHV CQI organizational structure contains three processes (please reference the CQI model chart on page 19 for a more comprehensive view of the process).

a.) The first level process is facilitated continuously at the program level and is completed by a program level review team.
b.) The second level process is facilitated as a formal CQI process at a site or community level.
c.) The third level process is facilitated as a formal CQI process at the state level.

Organizational Chart

N-MIECHV currently includes home visiting services provided in the three communities of Lincoln/Lancaster County, West Central Health District, and the Panhandle. Each of these communities will facilitate program- and community-level CQI processes [2] for local problem-solving, while passing the information to the state-level CQI team if it is a problem that is also experienced by other communities. A final annual review of all completed CQI cycles and possible recommendations will be provided by a state review team[3]. A more comprehensive description of the proposed CQI process is provided in chapter two.



[2] The Panhandle chose to facilitate a two level process on a community level. The Management CQI team will accept CQI initiatives related to Home Visiting program implementation and service delivery while the Community Partnership will accept initiatives that involve solutions that need to be developed and implemented by a cross section of the community system.

Membership

The N-MIECHV CQI teams are comprised of stakeholders from participating Home Visiting programs and other disciplines from around the state to identify key processes that contribute to positive outcomes in home visiting. Both, the involvement of all staff and the array of community stakeholders are vital to the success of the N-MIECHV CQI process. The teams review program data and findings, evaluate and test recommendations, and suggest and implement changes to improve practice.

CQI team members are individuals who are willing to challenge each other to make key decisions, and to be creative and forthcoming with recommendations. Teams typically have 8-12 members. The following chart provides suggested team configurations.

Level	Recommended Membership
Program Level Quality Review	Review Team Members ➢ 2-5 Home Visitors ➢ A data specialist ➢ A program manager or supervisor ➢ The site administrator ➢ N-MIECHV Business Analyst (as needed) ➢ N-MIECHV Coordinator (as needed)
Community Level CQI	CQI Stakeholders ➢ Site administrator (or designee) ➢ Site supervisor ➢ One consumer ➢ One Home Visitor ➢ Referral network representative ➢ Early childhood system representative ➢ Other community stakeholders as desired
State Level CQI	1. State Stakeholders ➢ Business System Analyst ➢ Home Visiting Program Coordinator ➢ MCH Surveillance Coordinator and Epidemiologist ➢ Early Childhood Systems Coordinator 2. Home Visiting Stakeholders ➢ Directors or supervisors of each local N-MIECHV implementation site ➢ Other Home Visiting program representatives (should have decision making responsibility – or be able to strongly advocate for implementation of strategies) ➢ One Home Visitor 3. Community stakeholders ➢ Two members from the Nebraska Home Visiting Partnership

Meeting Schedule

CQI teams meet at least quarterly - a best practice standard. New teams might find it appropriate to meet more frequently during the initial implementation period (for up to one year) to more closely monitor process efficiencies and the effectiveness of the early childhood and community support systems. Program-level monitoring should be a continuous process with frequent monitoring by supervisory and Home Visiting staff. The site and the state-level CQI teams meet minimally, on a quarterly basis; more often as needed or as requested by the program-level review team. The CQI cycle for each project goal will take approximately 6-10 months to complete, beginning with the analysis, continuing with the planned implementation, and concluding with a permanent implementation of the agreed-upon strategy.

Record Keeping

A good communication plan is a key ingredient of a successful CQI process. Stakeholders and team members impacted by the process will be kept informed of the changes, timing, and status of the quality improvement projects.

Each CQI team will keep a file of all documents related to activities and accomplishments. This includes at a minimum meeting agendas, data reports, meeting notes, attendance records, research material and a description of each completed CQI cycle. The description will contain narrative and graphical information about each step of the CQI cycle and a formal plan for each goal (a plan outline is provided in appendix 3). The CQI manual will be updated annually and, in addition to the items described in this section, should also includes all CQI procedures and a description of the annual CQI plan.

Decision Making

All decisions are made by consensus. Consensus does not mean everyone agrees with the decision, nor does it mean taking a vote and majority rule. Rather, consensus means that everyone agrees to actively support the group decision.

Confidentiality

Confidentiality can become a concern during the CQI process as sensitive information will be shared. In order to assure confidentiality of families, staff and programs, there is to be no reference during meetings to specific identifiable information such as names, protected information or titles. Data will be provided only as community-level aggregate data and may be shared only with permission from applicable program administrators.

A second level of confidentiality also needs to be observed. The majority of concerns discussed by the team can be shared. However, team members need to be sensitive to the fact that some discussions should remain confidential. Problem solving is a creative process during which teams discuss ideas and concerns that might be misinterpreted by someone unfamiliar with the context of the discussion. Information discussed during team meetings should not be shared with persons outside of the meeting.

Training and Support

The CQI process needs to be well organized and adequately supported with sufficient resources. The N-MIECHV state team plays a vital role in the support and development of the CQI process. After core training, ongoing support and development of the CQI teams is provided as follows:

1.) Each site receives technical assistance in the development of a CQI manual and procedures.
2.) As needed, the N-MIECHV state team will provide training and orientation for new CQI team members. The specific purpose of the training is to gain a deeper understanding of home visiting, fidelity, and the purpose and strategies of effective CQI.
3.) In addition to the N-MIECHV state Maternal Child Health Epidemiology team, other levels of expertise are available to the team as needed through:
    a. The University of Nebraska Medical Center (UNMC) N-MIECHV evaluation team. The team can provide professional guidance relating to data analysis and practical application.
    b. The University of Kansas (KU) data team. The team can provide expertise relating to data collection, data analysis and visual presentation of data.
    c. The Nebraska Public Health Improvement Initiative. This team is able to provide national expert technical assistance related to CQI.
    d. The MIECHV Technical Assistance and Coordinating Center (TACC). The TACC is a national provider and provides support to state and territory grantees in implementing MIECHV-funded Home Visitation programs. The TACC brings extensive experience and a wealth of expertise in achieving high quality program implementation, creating integrated service systems and improving program outcomes.

CQI Process procedure

The N-MIECHV initiative will use the CQI model of data-driven decision-making to promote the use of evidence-based practices, in which programmatic decisions are guided by data and the best evidence from scientifically sound research. While there are several formal models of CQI, N-MIECHV has chosen *the Plan, Do, Check and Act (PDCA)*cycle.

The cycle involves a well-researched and logical approach to team problem-solving. The steps include the use of quality tools. The advantage of a common model is that everyone can begin to speak the same quality improvement language, and each stakeholder can understand what step of the process they are working in. The PDCA cycle is a series of activities designed to improve efficiencies in order to achieve better outcomes. It breaks the CQI process into manageable pieces, using a series of individual cycles that build on successes and lessons learned. [4]

2. Define the current situation

Break problem down into component parts, identify major problem areas, and develop a target improvement goal.

3. Analyze the problem

Identify the root causes of the problem, using charts and diagrams as needed.

4. Develop an action plan

Outline ways to correct the root causes of the problem, specific actions to be taken, identify who, what, when and where.

5. Engage in Plan , Do, Check, Act

an a measure of
s will enable the QI team to know whether the intervention is working.

Do

Implement the intervention. Make sure necessary data are generated.

Check

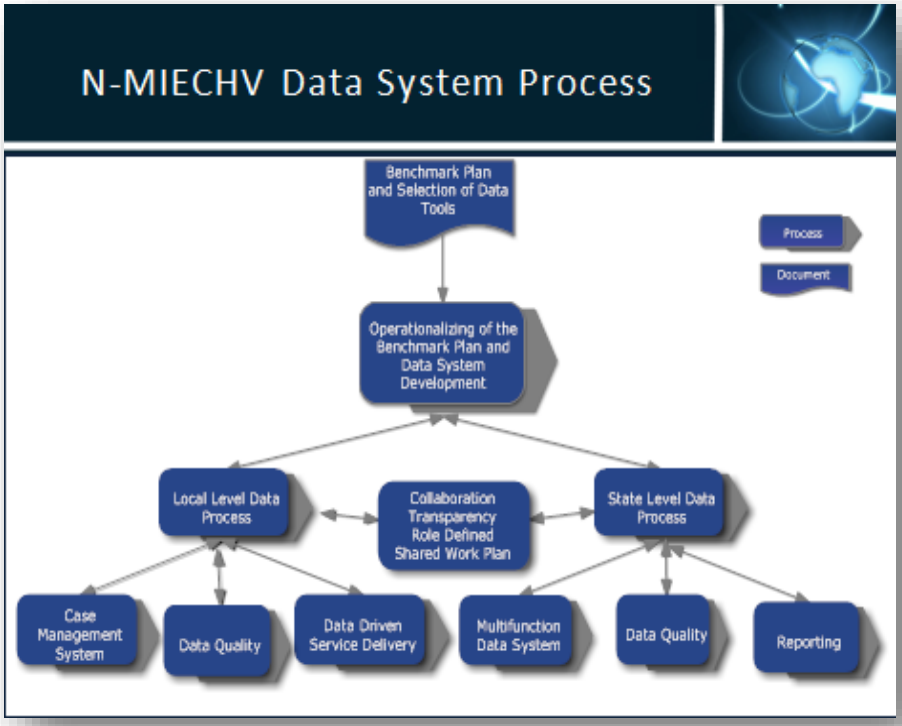
Collect and analyze data to see whether the intervention works before making it part of ongoing daily operations.

Act

If the new process is effective, make it part of ongoing operations. If the change is an incremental step, continue on to the next step in the subsequent PDCA cycle. If the new process is not effective, use what was learned to design another intervention that will be tested in the next PDCA cycle. The "Act" of one cycle informs, or sometimes becomes, the "Plan" of the next cycle, creating a continuous process of improvement.

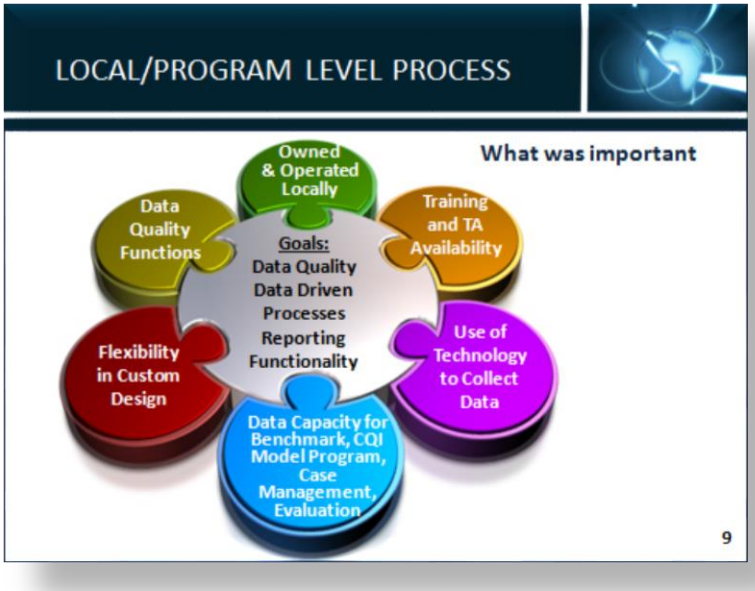
Adapted from information from the Institute for Heal care Improvement, NC Center for Public Health Quality, NC Charlotte Area Health Education enter, and NC State University Industrial Extension Se ice.

Collection, management and utilization of data are vital concepts in CQI. To assist this process, N-MIECHV has developed a comprehensive information system that collects data to monitor key implementation processes and outcomes. These data are used to measure the MIECHV Benchmarks, perform the N-MIECHV Evaluation and assess CQI efforts. This section describes the data collection and data management process.



The foundation for all data-related activities is the team's commitment to quality data collection. A programmatic culture where data are valued and used for process improvement and optimal outcomes needs is a shared vision of all N-MIECHV team members.

The N-MIECHV data system includes both local level case management databases and a state-level data collection and integration system. The state system merges local level data with other relevant data collected by outside agencies. The process for data collection is one that is shared and parallel across sites, and characterized by a highly collaborative and transparent procedure. A shared work plan with specific activities defines roles and responsibilities of the state and the site teams.

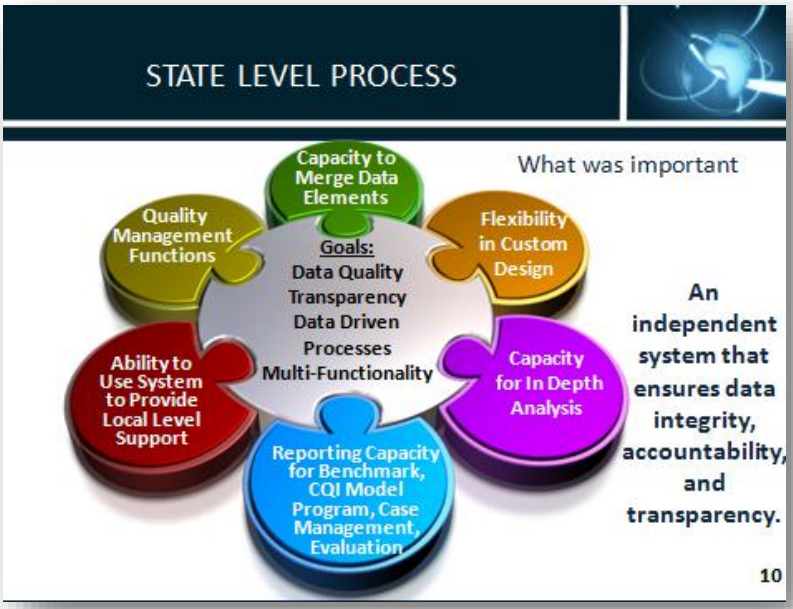


Local HV Data Bases

Each program collects individual-level data through electronic case management systems. The data systems are either purchased from vendors or are locally developed. Each system meets specific requirements, is comprehensive, and serves to inform the local CQI process as well as provide data for benchmark reporting. Careful planning during implementation phases assures that all necessary data fields are collected and that data quality checks are implemented. Characteristics of the local data systems include:

a.) Owned and operated locally

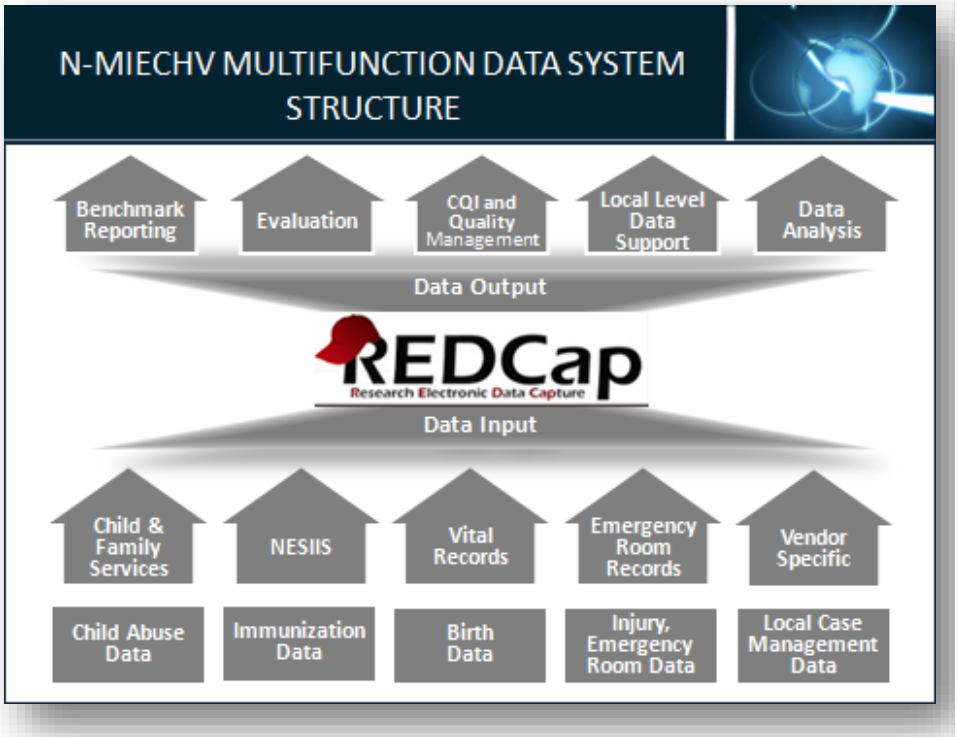
b.) Use of technology such as electronic tables (e.g., iPads®) to collect data in "real time"
c.) Flexibility in custom design
d.) Data quality and reporting functions



N-MIECHV Data System

At a minimum, program level data are transferred quarterly to the secure NDHHS FTP site. Datasets are then processed and transferred to the REDCap (Research Electronic Data Capture) system which is housed on a secure DHHS server. REDCap is a data repository or warehouse that manages longitudinal linked data, and is the platform for statewide data collection. The REDCap system was specifically tailored for N-MIECHV and is currently supported through a contract with the University of Kansas. Key characteristics of the state data system include:

a.) Quality management functions
b.) Capacity for merging data elements
c.) Flexibility in custom design
d.) Capacity for in depth analysis
e.) Benchmark, CQI, and evaluation reporting capacity
f.) Capacity of provide local data support



In addition to local-level home visiting program data, N-MIECHV obtains additional data from the DHHS Child and Family Services (CFS), Vital Records, Immunization (NESIIS), and Health Statistics programs. These files are integrated into the reporting and evaluation file, using a unique Family ID.
Once the data are successfully merged in REDCap and data quality standards are met, a data package is exported for CQI reporting.

Data Quality Management

To meet data quality CQI standards, local systems need basic elements such as usability and accessibility, real-time access, training and support of users, and ongoing maintenance and upgrades (Ammerman 2011). Vendors for local case management systems provide the overall maintenance of the system. The databases are web-based systems, and Home Visitors utilize data entry "tablets" for real time/field data entry. Training and support, and efficiency capacities include the following:

- Data entry, data quality trainings and on-going training support as needed are addressed by the N-MIECHV state team.
- Case management vendors are available to assist with immediate data entry needs.
- Webinars centering on connecting the data to practice and addressing data entry concerns are provided by Vendors.
- Technical assistance and training is provided for special topics as needed through the University of Kansas.
- Tickler/alert systems provide Home Visitors with the due dates of the various assessments, fidelity activities and data entry schedules.
- Reporting capability allows supervisors to provide regular data quality checks and also serves as a real time supervision tool.
- Web-based real time data entry.
- Fidelity reports match each Model Program standard and provide enrollment and retention reports.
- Table export utilities provide automated export procedures for seamless data downloads to Excel and common statistical packages (SPSS, SAS, Stata, R).

Extensive data reporting formats have been developed for the CQI process. This section describes the reporting capacity and structure that will be utilized for N-MIECHV CQI, and includes local and state-level capacities and structures.

Local Level Reporting Capacity

The local level data bases have advanced features that can produce reports for CQI, staff support and fidelity assessment. This increases ownership and independence, allows program level access to reports and data in "real time," and reduces the reliance on state-level reporting. The following reporting capacities are available at the local level:

a.) Credentialing reports addressing critical fidelity elements.
b.) CQI reports addressing primary processes.
c.) Quarterly reports addressing service utilization and outcomes.
d.) An export utility allowing the transfer of data into statistical analysis programs.
e.) "Tickler" reports providing alerts of due dates.

Vendors for the local case management systems offer considerable flexibility so that communities can design and add additional reports to the system as needed.

State-Level Reporting Capacity

On a state level, the N-MIECHV data system has the capacity to produce a considerable amount of client, family, and community-level data. An attractive feature of the REDCap data management system is its ability to merge multiple sources of data – whether generated by the program or received from external partners, and produce reports on these multiple levels.

As needed, additional reports will be developed for relevant processes to enhance operation and decision-making and to optimize services. The statewide REDCap data system links local data with hospital discharge or medical data, child abuse data and well-child data. Linking databases in this manner provides a firm cornerstone for effective use of data reporting for QI purposes.

What are the Benchmarks?

The legislation establishing MIECHV requires quantifiable, measurable improvements for the populations participating in the program. Grantees must demonstrate improvement in the following benchmark areas:

1. Improved maternal and newborn health
2. Prevention of child injuries, child abuse, neglect, or maltreatment, and reduction of emergency department visits
3. Improvement in school readiness and achievement;
4. Reduction in crime or domestic violence
5. Improvements in family economic self-sufficiency; and
6. Improvements in the coordination and referrals for other community resources and supports. "

Alignment and Integration with Benchmarks

Reports also include aggregate outcome data, which will be submitted to the federal funders in the MIECHV-approved reporting forms for demographic and benchmark data. The benchmark data will also be utilized for the evaluation plan and CQI as well as for reporting to local communities. For example, local programs will receive CQI, benchmark and evaluation reports quarterly. These reports will assist local communities with assessing their success in addressing their community's unique risks and priorities.

Reporting Formats and Schedule

The proposed reporting formats and schedule include numerous reports, formatted to fit the needs and expertise level of the target audience, designed to assist teams in tracking progress and identifying problem areas. Reports are generated on a monthly, quarterly, semi-annual and annual basis. The frequency of the reports is specific to five target areas (discussed later in this document).

For more specific information about the proposed frequency and review structure of the reports, please reference the reporting schedule below. The schedule describes the team responsible for reviewing and as applicable analyzing the data, the frequency of the reports, those responsible for producing the report and the source of the data.

Report	Review Team (P=Program Team, CCQI= Community CQI Team, CQI= State Team, ET=Evaluation Team, ST=State Leadership Team)					Reporting Schedule																	Responsible Person	Source
						Monthly											Quarterly				6 &12 Month		As Needed		
Schedule	P	CCQI	CQI	ET	ST	J	F	M	A	M	J	J	A	S	O	N	D	Q1	Q2	Q3	Q4	6 M	12M			
Benchmark and Outcome Report																										
All Constructs by site and by state	√	√	√	√	√													√	√	√	√				Univ. of Kansas	REDCap
Site or Model Program outcomes	√	√																√	√	√	√				Site Manager	Site DB
Consumer Satisfaction Reports																										
Cultural Competency	√	√	√		√																		√		Business Analyst	REDCap
Satisfaction Program Process	√	√	√		√																		√		Business Analyst	REDCap
Satisfaction with Outcomes	√	√	√		√																		√		Business Analyst	REDCap
Home Visitor Support Reports																										
Training and Development	√	√	√																				√		Site Manager	Site DB
Case supervision	√	√	√		√													√	√	√	√				Site Manager	Site DB
Competency related to target need	√	√	√																				√		Site Manager	Site DB
Annual Specific CQI Reports (2012-2013 Plan)																										
Referred by county, site and state			√															√	√	√	√				Univ. of Kansas	REDCap
Retention by site and state			√															√	√	√	√				Site Manager	Site DB
Birth rate by county and state			√															√	√	√	√				Epidemiology	Birth record
Local CQI needs beyond CM system		√																						√	Univ. of Kansas	REDCap
Outlier data		√	√																			√	√		Univ. of Kansas	REDCap
Evaluation Reports																										
TBD	√			√																					Univ. of Kansas	REDCap
TBD	√			√																					Univ. of Kansas	REDCap
Data Quality Reports (monthly schedule for new programs only for the 1st six months)																										
Missing data (all reports) by site	√				√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				Business Analyst	Server
Date accuracy by site	√				√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				Site Manager	Server
Timeliness/Time schedule by site	√				√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				Univ. of Kansas	REDCap
Data transfer quality					√	√	√	√	√	√	√	√	√	√	√	√	√								Business Analyst	
Service Delivery Fidelity and Model Fidelity Reports																										
Referral and Enrollment	√	√			√													√	√	√	√				Site Manager	Site Database
Retention	√	√			√													√	√	√	√				Site Manager	Site Database
Discharge	√	√			√													√	√	√	√				Site Manager	Site Database
Critical Elements	√	√			√																		√		Site Manager	Site Database
Home Visit and goal planning	√	√				√	√	√	√	√	√	√	√	√	√	√	√									
Federal Reports																										
Benchmarks				√	√																		√		Univ. of Kansas	REDCap
Demographics					√																		√		Univ. of Kansas	REDCap
Nebraska Risk Factors																										
Level 1Risk factors by county				√	√																			5 years	Epidemiology	Community

Chapter II

(N-MIECHV CQI Model)

N-MIECHV Continuous Quality Improvement/Management Model

Support System

- N-MIECHV State Team
- University of Kansas Data Team
- UNMC Evaluation Team
- Technical Assistance Coordinating Center
- Early childhood system
- N-MIECHV Home Visiting Partnership
- Public Health Improvement Initiative TA

Panhandle Data System | West Central Data System | Lincoln Lancaster County Data System

N-MIECHV Data System

Creation of Site and State Specific Data Dashboards
(Weekly, Monthly, Quarterly, 6 Month or Annual Reports are Produced as Applicable per Target Area Below)

Quality Improvement Target Areas (described in a dashboard format)

Service Delivery/Fidelity	Benchmarks and Outcomes	Home Visitor Support	Customer Satisfaction
Implementation	Health and wellbeing	Training	Cultural competence
Referral and Enrollment	Maltreatment & injury	Development	Service satisfaction
Retention	Parenting & development	Case supervision	Rate of progress
Home visit quantity	Domestic violence	Level of competency compared to service population need	Level of learning and skill acquisition
Home visit quality	Economic self-sufficiency		Parent – Home Visitor Relationship
IFSP quality and quantity	Referral networks		
Model Program Fidelity	Model Program outcomes		

Level One: Program

Application of an Auditing System

Program Specific Home Visiting Quality Monitoring and Improvement

Program teams review data in the 5 target areas with the assistance of a service delivery effectiveness analysis criteria check list. The effectiveness analysis examines processes efficiencies and anticipated outcomes. The analysis may determine technical or adaptive challenges. If they are technical, program management will problem solve and implement strategies accordingly, and if they are adaptive and/or in need of further analysis the concern will be passed on to the community specific CQI team.

As needed a process is utilized to prioritize the number of problems to be passed on to the site CQI team (this will assure a strategic approach and avoid overburdening the system).

Level Two: Community

Community-Level CQI

Community CQI teams will complete a root cause analysis and apply the Plan, Do, Check, Act (PDCA) cycle to address the challenges in collaboration with the program. The concern, data and root cause analysis will be passed in the state CQI team if it can be identified as a concern experienced by other sites, or if it calls for additional adaptive problems solving.

Panhandle Health District CQI Team | West Central Health District CQI Team | Lincoln Lancaster County Health Department CQI Team | Other Nebraska Home Visiting Programs as Individually Desired

As needed a process is utilized to prioritize the number of problems to be passed on to the site CQI team (this will assure a strategic approach and avoid overburdening the system).

Level Three: State

State-Level CQI

The state CQI team will complete a secondary root cause analysis and apply the PDCA cycle. Annually, the team will submit all findings to a state review team. The review team will review the results and outcomes of the state CQI cycles and recommend and disseminate suggested changes or adaptations in home visiting to N-MIECHV and other home visiting stakeholders as applicable.

As described in the chart above, N-MIECHV uses a comprehensive CQI model that incorporates program-, community-and state-level systems. Five main target areas have been selected for CQI processes. This section describes the three-step process and actions the CQI teams use to review and address the target areas.

Quality Management Target Areas

Systematic analysis and incorporation of data is the foundation for the processes depicted in the above chart. Data analysis is an integral part of this work, and will be conducted within five main targets. These proposed target areas include:

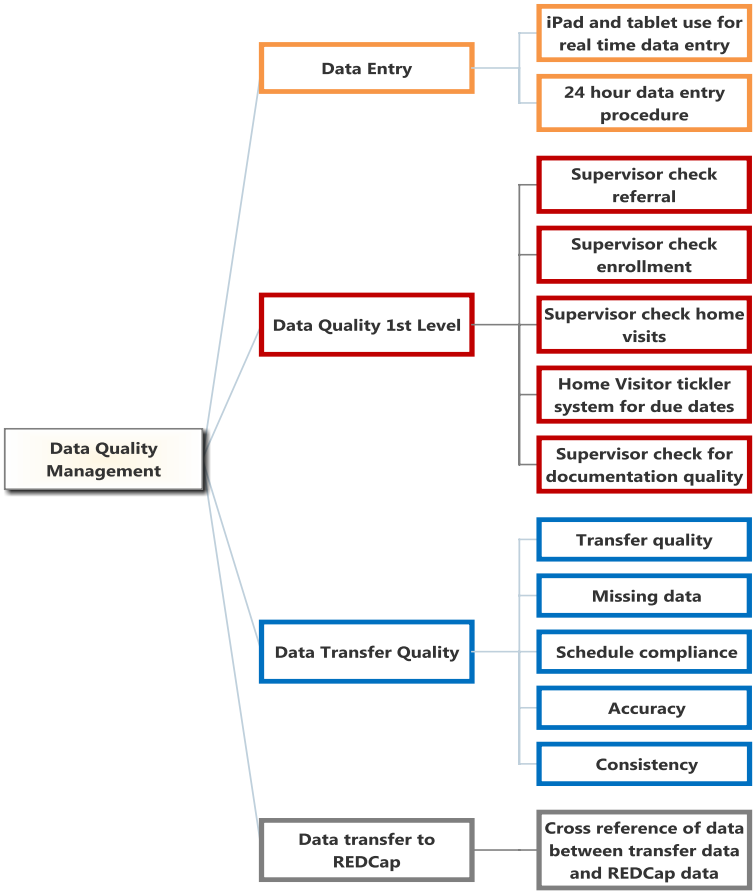
1. Data quality,
2. Service delivery mechanisms and adherence to fidelity measures,
3. Benchmark, outcome and demographic reports,
4. Support systems provided to Home Visitors, and
5. Customer Satisfaction measures.

Current practice stresses the implementation of training procedures, as needed, to strengthen these target areas. The training process includes specific training modules that address data entry, data utilization in practice, and data-informed decision making. A data collection and data quality manual has been developed for N-MIECHV programs and is disseminated to all implementation sites. This process serves as the first step in the CQI model, and helps shape a shared vision among all project staff. A number of additional tools, tables, and procedures further strengthen and enhance this process.

Target Area 1: Data Quality Management

Data-driven processes depend on quality data, which in turn depend on staff commitment to quality in data collection. Data quality is thus a collaborative process between local program sites and the state team. A number of process charts, reports and tools have been developed to check data. The process begins with training of site staff, as well as 3-6 month coaching support of program supervisors, to achieve a level of data quality from the very beginning. Four levels of quality checks occur at major junctions, producing reports that provide program- and state-level teams a summary of any data entry problems (see appendix 1 for further information about data collection timing).

Data are reviewed monthly at the program level and quarterly by the state-level CQI teams.

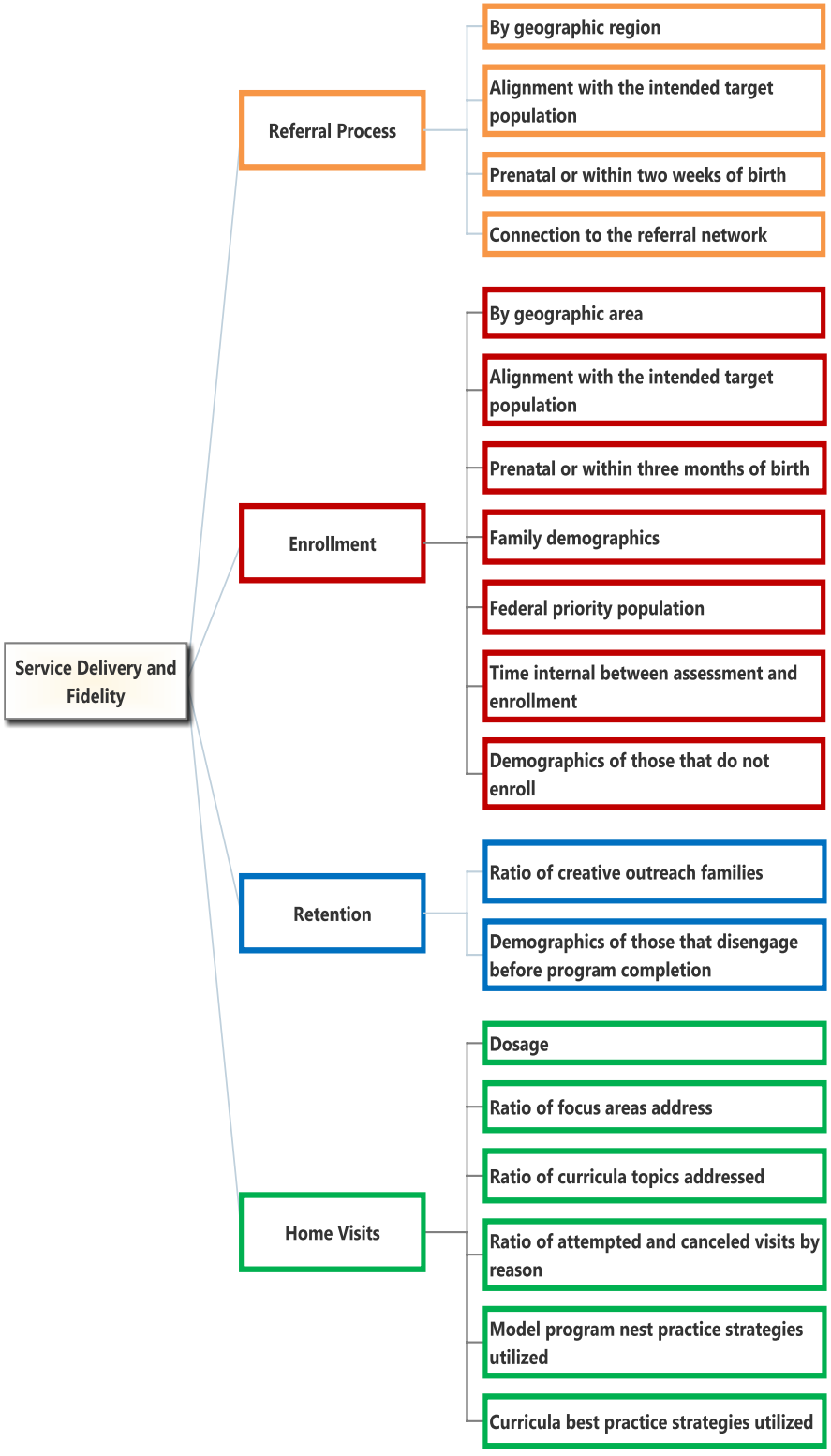


Target Area 2: Service Delivery Mechanisms and Fidelity

"Fidelity" refers to how well the program adheres to the structure required by the specific model. This target area addresses the specific fidelity measures, and the quantity and quality of required tasks.

Once the data are received from the local programs, the state system performs fidelity and quality analysis to measure adherence to required strategies. Descriptive client data as well are an important part of this work to determine:

a.) How well the program is meeting its recruitment and retention goals (see appendix 2 for further information about the referral, enrollment and retention steps).
b.) How well the program is meeting its home visit goals for dosage,
c.) How well focus areas are addressed with families,
d.) How often best practice strategies are applied by Home Visitors,
e.) How well the program is meeting its goals for developing and executing Individualized Family Supports Plans (IFSP),
f.) How well families are being connected with a wider support and service team, and
g.) How the curricula is implemented.



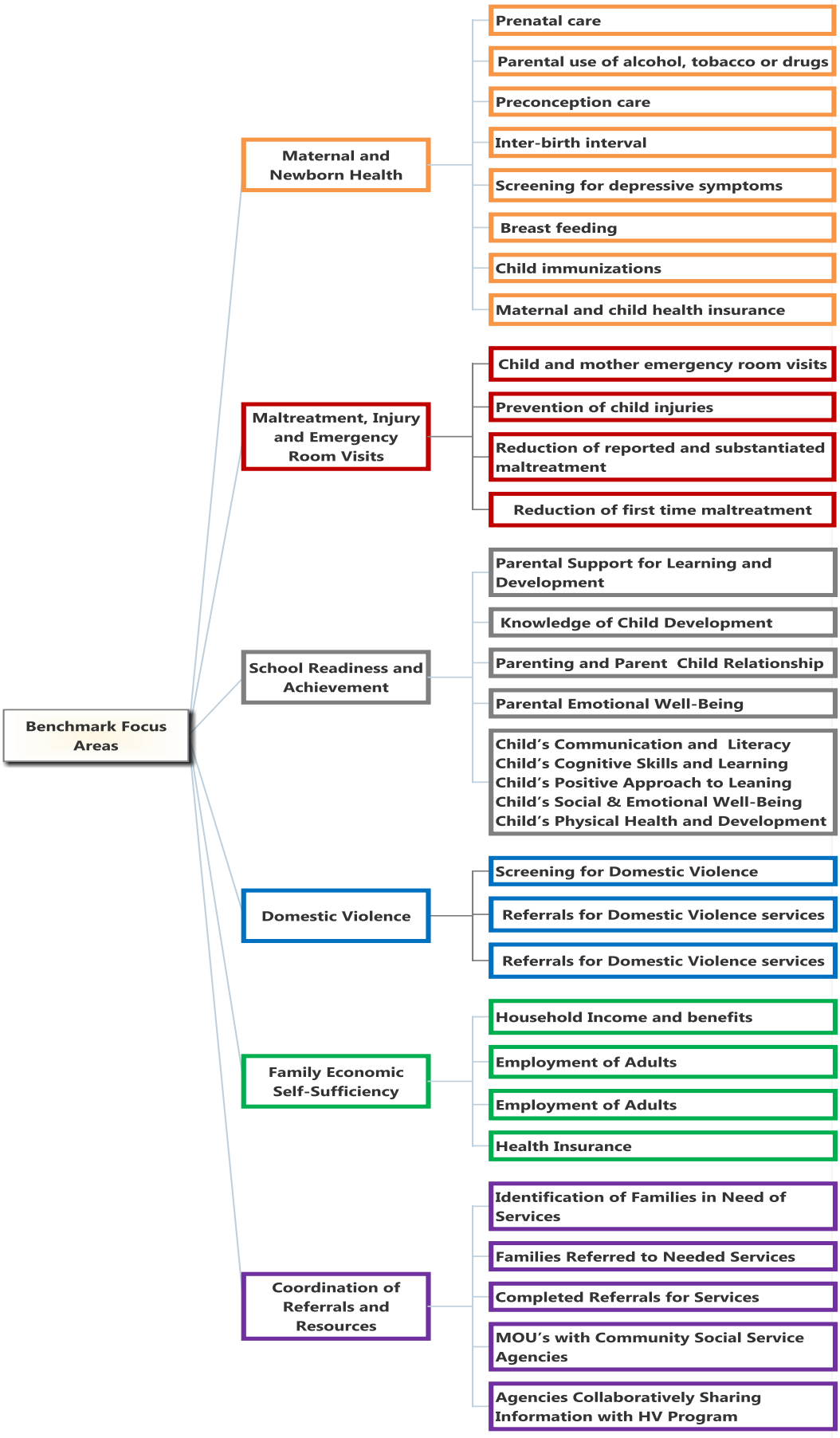
Service delivery data are reviewed continuously at the program level and quarterly by the CQI teams.

Target Area 3: Benchmarks and Outcomes

State-level staff have developed a benchmark plan, and established reports to monitor change in those benchmarks. This information is critical to the CQI work and although generated at the state, will be interpreted and used by both local- and state-level staff. Continuous measurement of benchmark outcomes indicates which performance areas are lagging and need further attention.

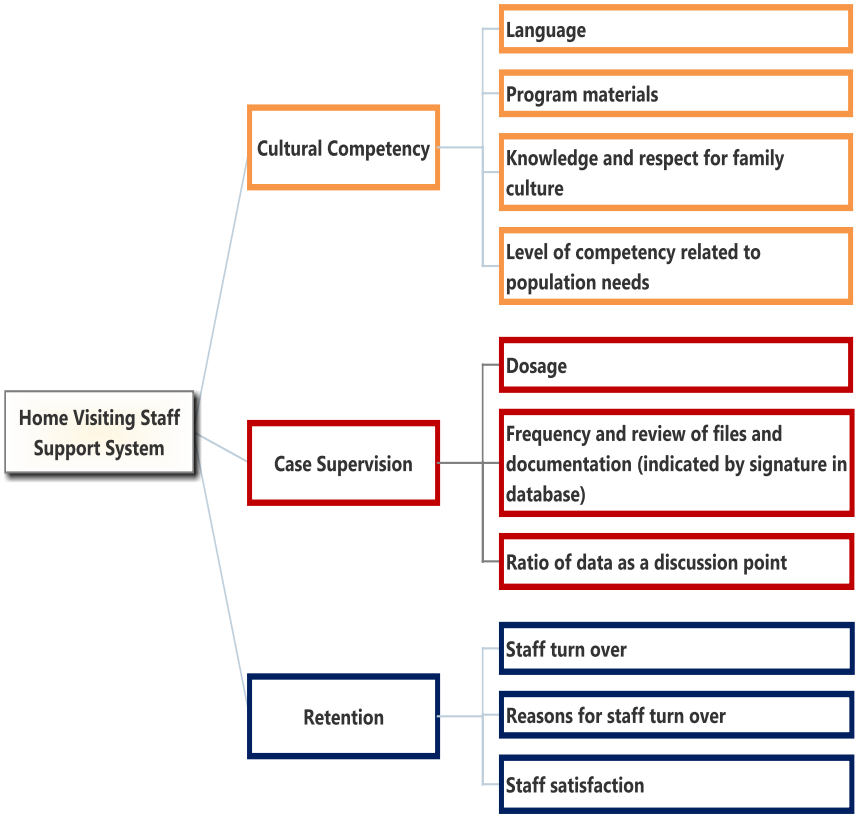
Each community will receive a quarterly benchmark and outcome status report for discussion at CQI meetings. Communities will be able to look at their benchmark data holistically as they relate to their other community priorities and identified needs.

Benchmark and other outcomes will be reviewed quarterly by all teams.



Target Area 4: Home Visitor Support System

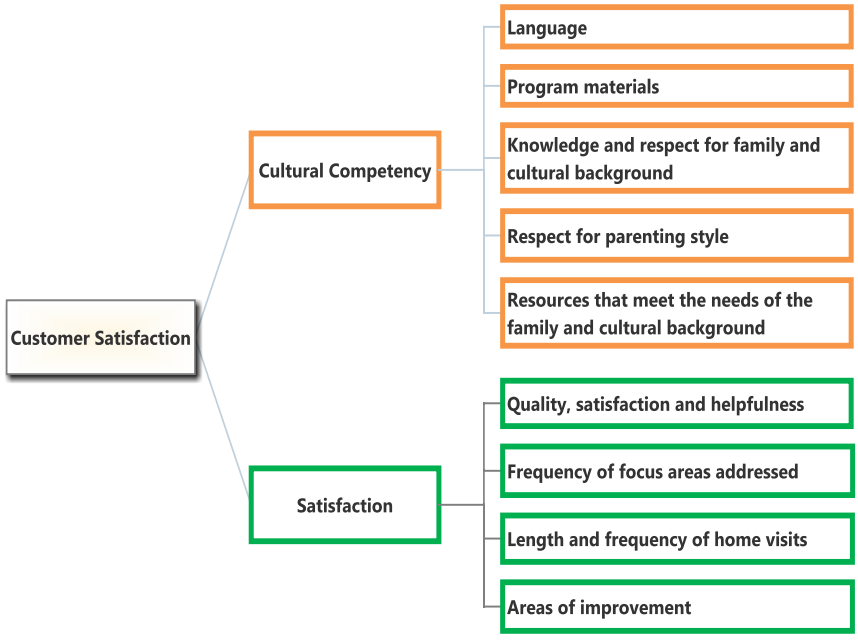
Key to effective home visiting are the knowledge, skills, and competency levels of program staff. On-going efforts are needed to assist staff in maintaining and maturing their skills. The model developer, local programs and the state N-MIECHV team work to help staff build those skills. The purpose of monitoring core competencies is to measure the demonstrated abilities of staff, and the level of support supplied to staff to obtain those skills. Teams review training reports; reconcile these with requirements; and measure competency levels of Home Visitors. Team members also compare the current knowledge and skill level of the staff to the unique needs of the population served.



Home Visitor support data will be reviewed quarterly by all teams.

Target Area 5: Customer Satisfaction

The N-MIECHV consumer satisfaction survey is to gather information from the participants regarding their experiences and satisfaction with staff and with the program. Satisfaction surveys will be completed on an annual schedule by participants. The survey measures a combination of domains, including satisfaction with services, satisfaction with program dosage, and satisfaction with the level of improvement or knowledge gained by the family. A secondary measure includes satisfaction with the level of cultural competence displayed by the program and the staff.



Customer satisfaction data will be reviewed annually by all teams.

Data Dashboards

An effective and efficient review system requires meaningful display of the data in each of the five target areas. N-MIECHV has chosen to use data dashboards as a method of evaluating and displaying quality measures. N-MIECHV collects a large amount of data, and its evaluation and analysis can become overly burdensome to the teams if it is excessive or excessively complicated. While the state-level evaluation needs to be in depth and scientific, local- and CQI-level analyses needs most of all to be efficient, easy and well-organized. Data dashboards are a logical choice for home visiting to present the amount of data that needs to be evaluated to visually show different views of information, creating a powerful way to display data.

What is a Data Dashboard?

"An easy to read, often single page, showing a graphical presentation of the current status and historical trends of home visiting key performance indicators to enable immediate and informed decisions to be made at a glance."

The five dashboards will provide data at the intervals described above for each of the five target areas. The figure (Figure 1) below illustrates a visual sample of a data dashboard and the second example (Figure 2) illustrates how a portion of the home visiting data (construct 1 and 5, Benchmark 1) might be displayed on a dashboard.

Figure 1

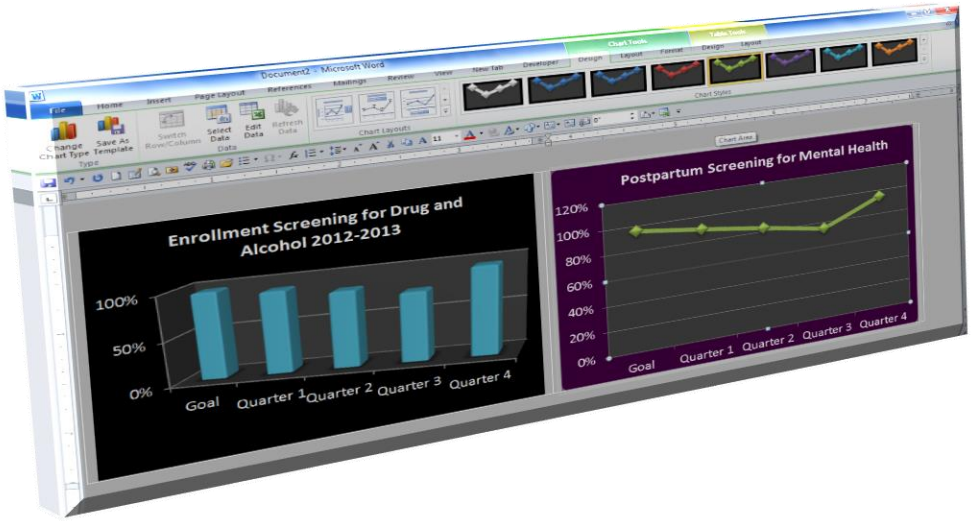


Figure 2

N-MIECHV CQI Process

This next section describes the three levels of CQI processes applied at the local and the state level. (It might be helpful to refer back to the CQI Model Chart on page 19).

Level One: Continuously Analyzing and Evaluating on a Program Level to Improve the Service Delivery Model

This process is designed to be completed as an internal practice where a team of program (site) staff and state-level staff (as needed) engage in an on-going process of effectiveness analysis. Reports are reviewed by program staff as described in the previous section.

Each Home Visiting program is required to evaluate its systems and procedures and use the findings to improve performance. The programs regularly examine internal processes through management meetings. At these meetings, information is shared regarding the five target areas discussed earlier in this document. When needed improvements are identified, and program improvement plans are developed. The process utilizes staff from all levels of the program, provides a viable method for evaluating and improving service delivery, and coordinates with the state team as needed.

To assist with this level of analysis, N-MIECHV staff and programs have developed a number of tools and processes that incorporate specific data sets into every day practice (see appendix 3 for a sample tool). Specific tools and data collection indicators (as described in the target areas above) provide information about the families' current needs, their children's developmental challenges, their needs for services, and goals for their individual family plans. With these data Home Visitors are able to determine how well they are teaching new skills, providing valuable information and setting a solid foundation for parents to develop a positive parent child relationship and learning environment. They are able to determine which aspects of service delivery and the program are succeeding and which may need adjustment. The supervisor plays an integral role and assists with helping program staff with the analysis. This is considered an essential activity for N-MIECHV programs. Research reports that the best Home Visitors and programs are those who analyze information about their work and make continuous efforts to improve.

To further assist with this process, the program teams apply an Effectiveness Analysis Criteria (specifically developed for this application) to determine if the problem is technical - solvable with routine methods, or adaptive - calling for an advanced level of analysis and problem solving. If it is technical, program management will problem-solve within the administrative structure of the program. If a problem is found to be adaptive, or otherwise in need for further analysis, the problem will be passed on to the Community CQI team.

(As needed, in the future a process to assist with prioritization and capacity management of specific CQI initiatives on the community level will be implemented. The purpose of this step is to align initiatives with the overall vision of the project and to prevent an overburdened system.)

Level Two: Problem Solving Through Community-Level CQI Teams

The Community CQI teams receive the specific proposed initiatives from the program team and will complete a root cause analysis and engage in a formal Plan, Do, Check, Act (PDCA) cycle for each problem.

This local community process provides a powerful roadmap for adapting home visiting programs to the cultural characteristics and needs of the communities while retaining the essential features of fidelity. It supports the adoption of methods and approaches to improve accountability, efficiency, and effectiveness of their community home visiting system; and its integration into local early childhood services.

Once a root cause analysis is applied, the team may determine that the initiative calls for additional adaptive problem solving or that the problem is system-wide in nature and should not be solved on a community level. In those instances the team will forward the proposed initiative to the N-MIECHV state-level CQI team.

(As needed, in the future a process to assist with prioritization and capacity management of specific CQI initiatives on the community level will be implemented. The purpose of this step is to align initiatives with the overall vision of the project and to prevent an overburdened system.)

Level Three: Problem Solving Through the State-Level CQI Team

The state CQI team receives proposed initiatives from the community-level CQI teams and engages in a secondary root cause analysis, continuing to use the PDCA cycle to guide the work. State-level initiatives are expected to show improved efficiency and effectiveness for the entire state-wide initiative.

The final step in the process involves an annual review. Annually, a state level review team will[5] evaluate the outcomes of each of these cycles to make recommendations for statewide change to N-MIECHV or other home visiting stakeholders.

(As needed, in the future a process to assist with prioritization and capacity management of specific CQI initiatives on the community level will be implemented. The purpose of this step is to align initiatives with the overall vision of the project and to prevent an overburdened system.)

[5] At this time it is proposed that the Nebraska Home Visiting Partnership take on this role. Approval for this step still needs to be obtained by the group)

Chapter III

(CQI Plan)

ANNUAL CQI PLAN 2012-2013

Each CQI team will develop an annual CQI plan that outlines specific initiatives as well as major development and training activities. The plan is a working document, and is to be updated continuously throughout the year. Specific detailed protocols for the annual plan and a standardized planning process will be developed once CQI teams are fully formed. At a minimum these plans will include:

1. Major CQI team development and process action steps for the target year (e.g. trainings planned, new member recruitment)
2. A short outline of the data reviewed and the major root causes of problems identified during the CQI analysis.
3. A completed Plan Worksheet for each formal initiative facilitated (appendix 4).

N-MIECHV Annual Activity Plan 2012-2013

N-MIECHV CQI program activities for the 2012-2013 grant year center on two main objectives: training and development.

Training

Training and competency development activities will center on revising and expanding current training models. Likely products are improved facilitation of training activities for new communities joining the N-MIECHV initiative, and formal preparation for community- and state-level CQI process.

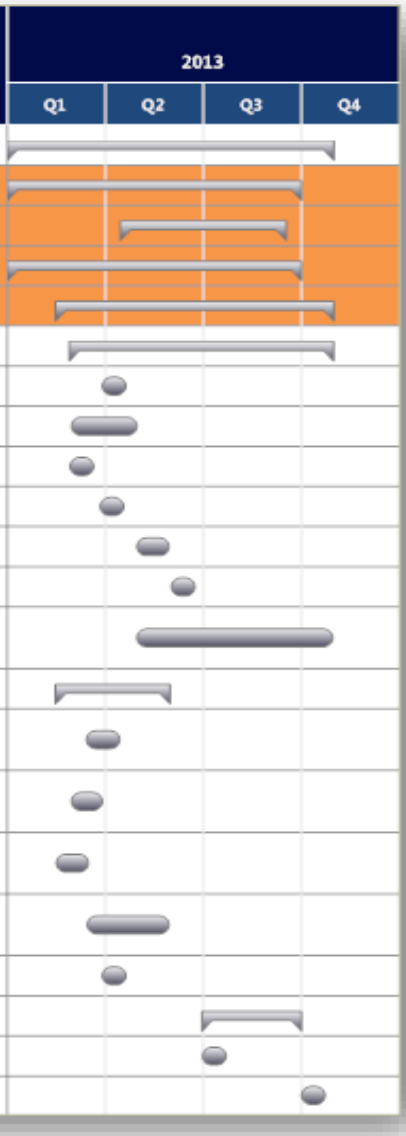
Development

Development activities will primarily center on expanding the existing CQI system with the goal of achieving the CQI model described in this document.

A detailed description of these activities is outlined in the work plans below and is organized by the specific community or team.

	Task	Start	End	Dur	2013 Q1	Q2	Q3	Q4
	2012-2013 CQI Plan Activity Table	1/1/13	10/30/13	295				
1	Panhandle Public Health District (PPHD) Activities	1/1/13	9/30/13	266				
1.1	PPHD executes 2012-2013 CQI initiatives	1/1/13	9/30/13	266				
1.1.1	Goal: Develop an expanded referral network in Box Butte and Morrill Counties	1/1/13	9/30/13	266				
1.1.2	Goal: Increase the percent of families who stay engaged with the program past 6 months	1/1/13	9/30/13	266				
1.2	PPHD facilitates program level CQI process	3/30/13	9/10/13	161				
1.2.1	N-MIECHV staff trains PPHD program level team members	3/30/13	3/30/13	1				
1.2.2	PPHD facilitates program level review meetings monthly as needed	4/10/13	9/10/13	151				
1.2.2.1	April Meeting	4/10/13	4/10/13	1				
1.2.2.2	May Meeting	5/10/13	5/10/13	1				
1.2.2.3	June Meeting	6/10/13	6/10/13	1				
1.2.2.4	July Meeting	7/10/13	7/10/13	1				
1.2.2.5	August Meeting	8/10/13	8/10/13	1				
1.2.2.6	September Meeting	9/10/13	9/10/13	1				
1.3	PPHD facilitates community level CQI process	4/30/13	9/15/13	136				
1.3.1	N-MIECHV staff trains community level CQI team	4/30/13	4/30/13	1				
1.3.2	3rd Quarter Meeting	6/15/13	6/15/13	1				
1.3.3	4th Quarter Meeting	9/15/13	9/15/13	1				
2	West Central Health District (WCHD) CQI Activities	4/15/13	9/15/13	151				
2.1	WCHD facilitates program level CQI process	4/15/13	9/10/13	146				
2.1.1	N-MIECHV staff trains WCHD program level team members	4/15/13	4/15/13	1				
2.1.2	WCHD facilitates program level CQI meetings monthly as needed	5/10/13	9/10/13	121				
2.1.2.1	May Meeting	5/10/13	5/10/13	1				
2.1.2.2	June Meeting	6/10/13	6/10/13	1				
2.1.2.3	July Meeting	7/10/13	7/10/13	1				
2.1.2.4	August Meeting	8/10/13	8/10/13	1				
2.1.2.5	September Meeting	9/10/13	9/10/13	1				
2.2	WCHD facilitates community level CQI process	5/15/13	9/15/13	121				
2.2.1	N-MIECHV staff trains community level CQI team	5/15/13	5/15/13	1				
2.2.2	WCHD facilitates community level CQI meetings	9/15/13	9/15/13	1				
2.2.2.1	4th Quarter Meeting	9/15/13	9/15/13	1				
3	Lincoln Lancaster County Health Department (LLCHD) CQI Activities	1/1/13	9/30/13	266				
3.1	LLCHD executes 2012-2013 CQI initiative	1/1/13	9/30/13	266				
3.1.1	Goal: Develop an expanded referral network for Lancaster County	1/1/13	9/30/13	266				
3.2	LLCHD facilitates program level CQI process	2/16/13	9/10/13	202				
3.2.1	N-MIECHV staff trains LLCHD program level team members	3/30/13	3/30/13	1				
3.2.2	LLCHD facilitates program level CQI meetings as needed	2/16/13	3/13/13	25				
3.2.3	April Meeting	4/10/13	4/10/13	1				
3.2.4	May Meeting	5/10/13	5/10/13	1				
3.2.5	June Meeting	6/10/13	6/10/13	1				
3.2.6	July Meeting	7/10/13	7/10/13	1				
3.2.7	August Meeting	8/10/13	8/10/13	1				
3.2.8	September meeting	9/10/13	9/10/13	1				
3.3	LLCHD facilitates community level CQI process	5/30/13	9/15/13	107				
3.3.1	N-MIECHV staff trains community level CQI team	5/30/13	5/30/13	1				
3.3.2	3rd Quarter Meeting	6/15/13	6/15/13	1				
3.3.3	4th Quarter Meeting	9/15/13	9/15/13	1				
4	N-MIECHV CQI Activities	2/15/13	10/30/13	252				

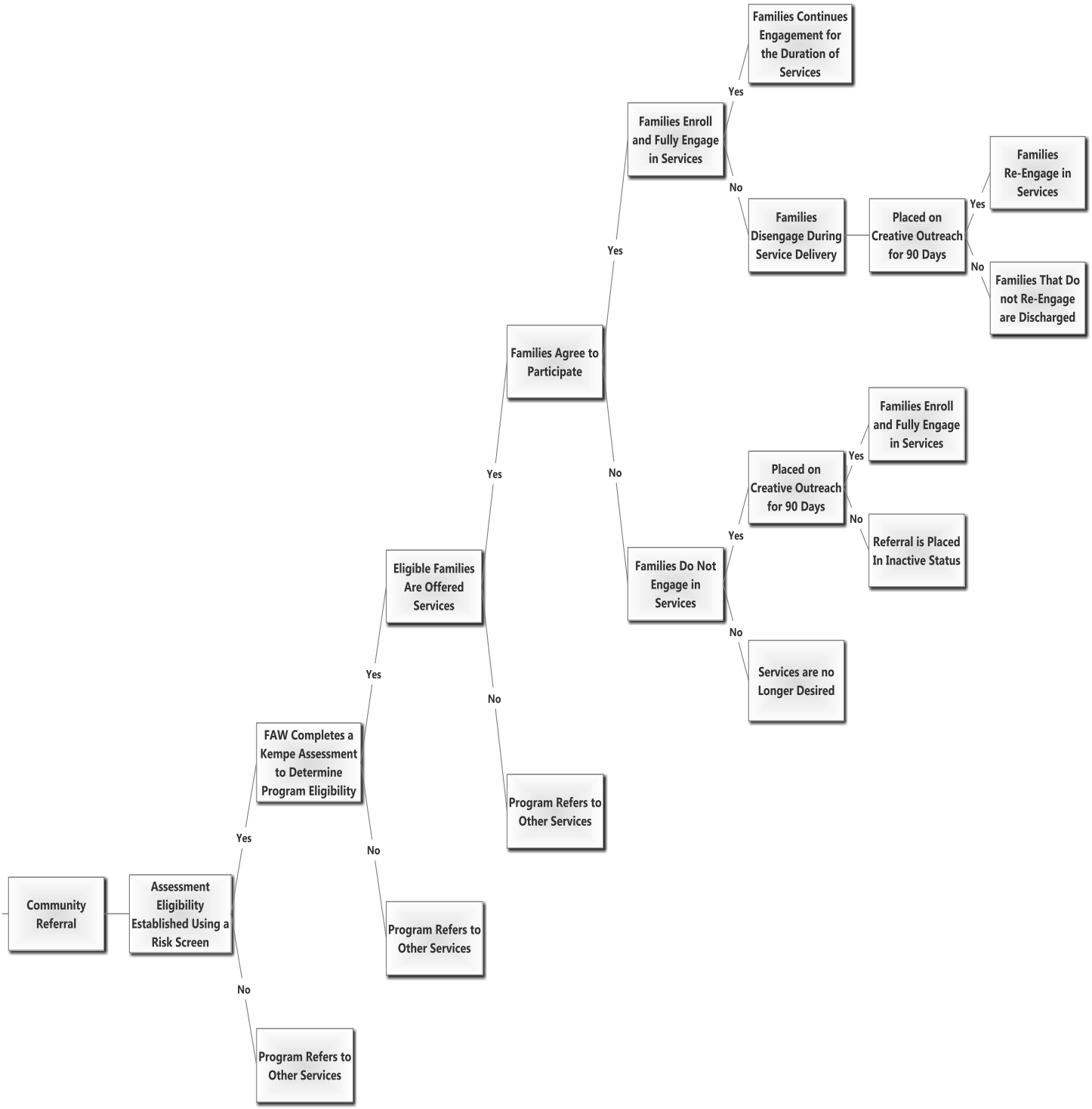
	Task	Start	End	Dur
	2012-2013 CQI Plan Activity Table	1/1/13	10/30/13	295
1	Panhandle Public Health District (PPHD) Activities	1/1/13	9/30/13	266
2	West Central Health District (WCHD) CQI Activities	4/15/13	9/15/13	151
3	Lincoln Lancaster County Health Department (LLCHD) CQI Activities	1/1/13	9/30/13	266
4	N-MIECHV CQI Activities	2/15/13	10/30/13	252
4.1	N-MIECHV Training	2/28/13	10/30/13	240
4.1.1	N-MIECHV staff updates current data management training system	3/30/13	3/30/13	1
4.1.2	N-MIECHV staff facilitates data training at LLCHD and WCHD programs	3/1/13	4/30/13	60
4.1.3	N-MIECHV staff revises and updates CQI training	2/28/13	2/28/13	1
4.1.4	N-MIECHV staff trains program level CQI teams	3/28/13	4/15/13	18
4.1.5	N-MIECHV staff trains community level CQI teams	4/30/13	5/30/13	30
4.1.6	N-MIECHV staff trains state CQI team	6/1/13	6/1/13	1
4.1.7	N-MIECHV staff revises, finalizes and implements 6 month data driven service delivery coaching system for program sites	4/30/13	10/30/13	180
4.2	N-MIECHV Development	2/15/13	5/30/13	102
4.2.1	N-MIECHV staff assists WCHD with the selection of CQI team members and infrastructure for CQI	3/15/13	4/14/13	30
4.2.2	N-MIECHV staff assists LLCHD as needed with the expansion of the current CQI team and CQI infrastructure	3/1/13	3/30/13	30
4.2.3	N-MIECHV staff assists PPHD as needed with the expansion of the current CQI team and CQI infrastructure	2/15/13	3/17/13	30
4.2.4	N-MIECHV expands the membership of the current state CQI team to form the permanent state team	3/16/13	5/30/13	74
4.2.5	N-MIECHV data team finalize data reporting format	3/30/13	3/30/13	1
4.3	N-MIECHV facilitates state level CQI process	6/30/13	9/30/13	91
4.3.1	3rd Quarter Meeting	6/30/13	6/30/13	1
4.3.2	4th Quarter meeting	9/30/13	9/30/13	1



Appendix (1) Data Collection Schedule

Tool Administration Schedule and Data Location in Relation to the 5 Benchmark Areas and 37 Constructs	R= referral AS=assessment I=intake AN =annual HV=home visit DS=discharge SE=special event PP=post-partum 6= every 6 months									Administration of Tools Target Childs Age in Months												Data Source(s) & Locations
Tool	R	AS	I	PP	6	AN	HV	DS	SE	2	3	4	6	8	12	18	24	30	36	48	60	
Screening and Assessment																						
15 item Screen	√																					FW (Screen Data)
Family Stress Check List (FSCL)/KEMPE		√																				FW (Family Assessment Record)
Intake and Service Delivery																						
HFPI (SR)																						
3.1 Support of learning/development			√			√		√			√				√		√		√	√	√	FW (G & P by Family)
3.3 Parent behaviors/child relationship																						
3.4 Parental emotional wellbeing																						
CES-D (SR)			√	√		√		√														FW (G & P by Family)
1.5 Maternal depression screening																						
UNCOPE (SR)			√			√																FW (G & P by Family)
1.2 Parental use of ATOD																						
ASQ 3 (WA and SR)																						
3.5 Child communication level										√		√		√	√	√	√	√	√	√	√	FW (G & P by Child)
3.6 Child cognitive skills																						FW (Home Visit Record Tab # IV– Other Information provided)
3.9 Child physical development																						
3.2 Knowledge of CD and progress																						
ASQ SE (WA)																						FW (G & P by Child)
3.7 Child positive approach to leaning													√		√	√	√	√	√	√	√	
3.8 Child social/ emotional wellbeing																						
Intake and Service Delivery																						
Family Wise	R	AS	I	PP	6	AN	HV	DS	SE	0	2	4	6	8	12	18	24	30	36	48	60	**Data Source(s) & Locations**
1.1 prenatal care							√															FW (G & P by Child Kotelchuck)
1.6 breastfeeding							√															FW (Home Visit)
1.3 preconception care							√															FW (G& P by Family-Medical)
1.4 pregnancy interval									√													FW (Referral Data)
1.7 well baby visits							√															FW (G7P Child) + NESIIS
1.8a maternal insurance					√																	FW (Demographics- Adult I, II)
1.8b infant insurance													√									FW (Demographics-Child Data)
5.3 household insurance					√																	FW (Demographics –Target Adult -HHM)
2.1 child emergency visits							√	Including dates and causes														FW (Incident Report Data)+ER Data
2.2 maternal emergency visits							√															FW (Incident Report Data)+PY Data
2.4 injuries needed medical attention							√															FW (G&P by Child - Medical)
2.3 prevention information							√															FW (HV-Curricula-Other Information)
2.5 screened in maltreatment report									√	dates of accepted reports, relationship of alleged perpetrator to TC, type of maltreatment												FW (Incident Report) + NFOCUS
2.6 substantiated child maltreatment									√													FW (Incident Report) + NFOCUS
2.7 first time maltreatment									√													FW (Incident Report) + NFOCUS
4.1 DV screening (4 validated questions)			√			√																FW (Assessment-KEMPE#6 extra items)
4.2 referrals for domestic violence									√													FW (Referral Data)
4.3 DV safety plan									√													FW (Home Visit Record III)
5.1 household income			√			√																FW (Household Data-One HH Rating)
5.2a employment of adults			√			√																FW (Demographics – Adult I, II – HHM)
5.2b education of adults			√			√																FW (Demographics – Adult I, II – HHM)
6.1 families that need services						√																Needs map w/criteria – separate doc.
6.2 families receiving referrals						√																FW (Referral Data)
6.5 families with completed referrals						√																FW (Referral Data)
6.3 agencies with MOU's																						
6.4 communication with agencies																						

Appendix (2) Referral and Enrollment Process



Appendix (3) HFPI Data Reflection

1. <u>Critical Priority Components</u> • **Severity of concern/problem (#:12, 15, 16, 18, 33, 34, 37)** • **Critical needs (examine individual items)** • **Targets for treatment (scores: social support 17, problem solving 19, depression 33, personal care 16, resources 18, role 21, parent child interaction 40, home environment 33, parenting efficacy 22)** • **Identify strengths**	
2. Are you surprised by the results? Why? • **Score(s) __ __ __ __ __ __ __ __ __**	
3. Overall impression	
4. Discussion with supervisor	
5. Discussion with the parent	
6. Service plan priorities • **Red flag/severity of concern** • **Critical needs** • **Target for treatment** • **Strengths**	
7. How do the results compare to previous HFPI data? • **Improvement?** • **Increased concern?** • **Celebration?** • **Compared to case load?** • **Compared to program?** • **Compared to national data?** You may want to consider doing a graph to show the improvement/progress (only do this with several weeks/months' worth of data)	
8. Other	

Appendix (4) CQI Planning Document

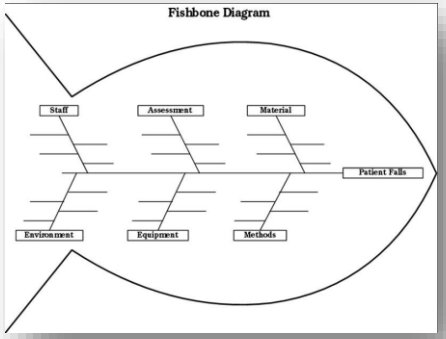
Problem Statement:

Goal for Improvement:

Indicator: By __/__/__ increase the percentage …. by ___ %.

Data Required/Needed Resources:

Root Causes-Barriers:



Actions Already In Place (strengths):

ACTION PLAN IMPLEMENTATION STEPS	TEAM MEMBER	START DATE	ESTIMATED COMPLETION DATE	CHECKPOINT DATE	INDICATOR OF SUCCESS	DATE COMPLETED	COMMENTS, STATUS, OUTCOMES)
Cause: Intermediate Goals: Short Term/Action Steps							
Cause: Intermediate Goals: Short Term/Action Steps							